

## REMARKS

Claims 1-7 and 21-23 are pending in this application.

In the Office Action dated April 6, 2004, the Examiner has made final the restriction requirement issued previously and has withdrawn from consideration Claims 8-20. By this amendment, Applicant has canceled Claims 8-20 without prejudice and reserves the right to file one or more divisional applications directed to the canceled claims.

The Examiner has rejected Claims 1-7 and 21-23 under 35 U.S.C. §103(a) as being obvious over Degnan et al. U.S. Patent No. 5,573,657 (“Degnan et al.”).

As pointed out by the Examiner, nowhere does Degnan et al. disclose or suggest a process for the hydrogenation and/or dehalogenation of polyalphaolefin to provide a substantially hydrogenated and/or substantially dehalogenated polyalphaolefin homo- or copolymer employing a catalytically effective amount of a substantially amorphous hydrogenation/dehalogenation catalyst comprising a metal component on an inorganic material based support *wherein the metal component is present in an amount of about 0.01 to about 5 weight percent, based on the total weight of the catalyst* as generally recited in Claim 1. As further pointed out by the Examiner, nowhere does Degnan et al. disclose or suggest a process for the hydrogenation and/or dehalogenation of polyalphaolefin wherein the hydrogenation/dehalogenation catalyst has a particle size distribution having particles greater than about 250 microns and particles less than about 75 microns as generally recited in Claim 23.

Rather, Degnan et al. disclose in the background section that hydrogenation is a well-established process and can be carried out in the presence of a catalyst which contains a metal hydrogenation component, e.g., nickel or noble metals such as platinum, palladium, rhodium and iridium, on a porous amorphous support material such as alumina, silica and silica-alumina

which have a pore size distribution with most of the pores larger than 50 Å and most of these are larger than 100 Å. Degnan et al. further disclose that they had discovered another class of catalytic materials for the hydrogenation of lubricant hydrocarbons, especially synthetic PAO-type materials, based on a hydrogenation catalyst containing a noble metal hydrogenation component on a support comprising an inorganic, porous crystalline phase material having pores with diameters of at least about 13 Å. At no point, however, is there even a remote disclosure, suggestion or a hint in Degnan et al. that the metal component of an amorphous hydrogenation catalyst comprising a metal component on an inorganic material based support is present in an amount of about 0.01 to about 5 weight percent, based on the total weight of the catalyst. Nor is there any remote disclosure, suggestion or even a hint in Degnan et al. of an amorphous hydrogenation catalyst having a particle size distribution having particles greater than about 250 microns and particles less than about 75 microns. Instead, Degnan et al. is merely concerned with crystalline catalysts material having pores with diameters of at least about 13 Å for hydrogenation of lubricant hydrocarbons and not at all with amorphous hydrogenation catalysts.

In order to meet his burden of a *prima facie* obviousness rejection, the Examiner alleges that "[i]t would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize a metal component in the amount of about 0.01 to about 5 weight percent, based on the total weight of the catalyst; and a catalyst with a particle size distribution having particles greater than about 250 microns and particles less than about 75 microns because the catalytic components are disclosed by the reference and it would be appropriate to adjust the weight of the metal component and the particle size of the catalyst to enhance its effectiveness." This wholly unsupported allegation cannot possibly serve as a basis for this rejection.

It is well established that "obvious to try" has long been held not to constitute obviousness. *In re O'Farrell*, 853 F.2d 894, 903, 7 USPQ2d 1673, 1680-81 (Fed. Cir. 1988). One skilled in the art of catalysis would readily understand that each catalyst yields different results in activity, selectivity, conversion, tendency to poison, and final product distribution based on a variety of factors, e.g., the starting type of metal salt and support, the specific methods used to formulate the catalyst and the manner in which the metal is deposited (e.g., inside pores on the support, outside pores on the surface, or both). Accordingly, one skilled in the art of catalysis would not readily know what result would be obtained based on any amount of metal present on any support. As pointed out by the Examiner, Degnan et al. is completely silent as to any amount that the metal component is present on the amorphous support and to the particle size distribution. As such, nothing in Degnan et al. would lead one skilled in the art to modify the hydrogenation catalyst disclosed therein containing a noble metal hydrogenation component on a support comprising an inorganic, porous crystalline phase material having pores with diameters of at least about 13 Å to arrive at the claimed substantially amorphous hydrogenation/dehalogenation catalyst comprising a metal component on an inorganic material based support wherein the metal component is present in an amount of about 0.01 to about 5 weight percent, based on the total weight of the catalyst for use in the recited process for the hydrogenation and/or dehalogenation of polyalphaolefin to provide a substantially hydrogenated and/or substantially dehalogenated polyalphaolefin homo- or copolymer with any expectation of success.

Accordingly, since Degnan et al. nowhere disclose or suggest the presently recited amorphous hydrogenation/dehalogenation catalyst comprising a metal component on an inorganic material based support wherein the metal component is present in an amount of about

0.01 to about 5 weight percent, based on the total weight of the catalyst for use in the process of Claim 1 or the recited particle size distribution of the catalyst for use in the process of Claim 23, Claims 1-7 and 21-23 are believed to be nonobvious, and therefore patentable, over Degnan et al.

For the foregoing reasons, Claims 1-7 and 21-23 as presented herein are believed to be in condition for immediate allowance. Such early and favorable action is earnestly solicited.

Respectfully submitted,



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